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EMBEDDED TIDBITS

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QUICKLOGIC LICENSES MIPS CORE

QuickLogic has licensed the MIPS32 4Kc core from MIPS Technologies for integration with its programmable logic and on-chip dual-port SRAM. This will allow QuickLogic's customers to develop prototypes of application-specific devices without spinning wafers or, in some cases, to use the programmable-logic devices instead of standard-cell ASICs as final products. Although ASICs are less expensive in volume, QuickLogic is targeting applications for which time to market is critical or that require high design security. The MIPS32 4Kc is a 32-bit, synthesizable embedded-processor core introduced last year (see *MPR 5/31/99-05*, "Jade Enriches MIPS Embedded Family"). For more information: *www.mips.com* and *www.quicklogic.com*. —*T.H.*

IDT REFOCUSES ON NETWORKING

IDT has reorganized and formed a new Internetworking Products Division that will focus on designing integrated network processors instead of general-purpose CPUs. Although IDT will support its current products, the company says it will stop developing new CPUs and will no longer pursue such markets as set-top boxes and information appliances. Instead, IDT's new division will target communications applications, such as routers, switches, wireless base stations, voice-over-IP gateways, home networking, and ADSL network-interface cards. Those markets already account for 70% of IDT's revenues. IDT will continue using MIPS cores for its new products. For more information: *www.idt.com*. —*T.H.*

NATIONAL'S GX1 LOWERS POWER

National Semiconductor has introduced a lower-power version of the Geode GX1 built in a 0.18-micron IC process. It typically consumes only 800mW at 1.6V and 200MHz, or 1.2W at 2V and 300MHz, according to National. The GX1 is an x86-compatible Pentium-class processor with an integrated PCI controller, memory controller, and 2D graphics accelerator. A companion chip, the Geode CS5530, provides additional functions. These chips are slightly enhanced versions of Cyrix's former MediaGX chip set (see *MPR 3/10/97-01*, "MediaGX Targets Low-Cost PCs"). Prices range from $47.20 for 200MHz to $69 for 300MHz. For more information: *www.national.com/pf/GX/GX1.html*. —*T.H.*

TRISCEND INTRODUCES NEW CONFIGURABLE CHIP

Triscend is sampling a new member of its E5 family of configurable system-on-a-chip (SOC) devices, which combine an 8032-compatible core with programmable logic. The new TE502 has a 40MHz 8032 core, 8K of on-chip RAM, 256 configurable system-logic cells, and up to 92 programmable I/Os (PIOs). It's a lower-end version of Triscend's TE505, which has twice as much RAM, twice as many configurable cells, and up to 124 PIOs. Both devices have a 40Mbyte/s internal bus. Triscend provides a GUI tool that allows developers to surround the CPU core with application-specific peripherals (see *MPR 10/6/99-en*, "Triscend Ships First Reconfigurable 8051"). The TE502 is scheduled to enter production this quarter and will cost $12.45 in 100-piece quantities. For more information: *www.triscend.com*. —*T.H.*

TI DESIGN WIN: SONY MP3 PLAYER

Sony is using the Texas Instruments TMS320C5409 DSP in its new Vaio Music Clip Internet-audio player, which can run for five hours on a single AA battery. The player has 64M of flash memory, a USB port for connections to PCs, and can play audio files in MP3, Windows Media, and other formats. Sony's Open MG copyright-protection technology complies with Secure Digital Music Initiative (SDMI) guidelines. TI's 'C5409 is a 16-bit fixed-point DSP. For more information: *www.ti.com/sc/*. —*T.H.*

NEC PORTS LINUX TO VR SERIES

NEC Electronics has ported Linux version 2.3.9 to its VR

series of 64-bit MIPS-compatible microprocessors, including the VR4121, VR5432, and VR5000 (see *MPR 3/9/98-01*, "NEC VR5400 Makes Media Debut"). The company is selling evaluation kits with a development board, Cygnus GNUPro Embedded ToolSuite, PMON debugging monitor, support packages for VxWorks and pSOS, and a trial version of VioSoft's Arriba GUI development system. The boards have serial, parallel, and Ethernet ports and at least two PCI slots. The VR4121 kit costs $4,950; the VR5000 and VR5432 kits are $2,450 each. For more information: *www.necel.com*. —*T.H.*

Patriot Scientific Allies With ProSyst

Patriot Scientific has formed an alliance with ProSyst USA to port the latter's mBedded server software to Patriot's PSC1000 processor family (see *MPR 4/19/99-en*, "Japanese Go ShBoom"). This will allow the bytecode-native PSC1000 to run embedded Java applications with networking capabilities. ProSyst's mBedded software is compatible with the wireless application protocol (WAP), Microsoft's Universal Plug and Play, and Sun's Jini (see *MPR 3/29/99-03*, "Sun's Jini: Science, Not Magic"). Patriot and ProSyst are targeting mobile devices such as PDAs, smart cell phones, Java smartcards, office equipment, and home appliances. For more information: *www.ptsc.com* and *www.prosyst.com*. —*T.H.*

Motorola Ships 56311 DSP

Motorola is now shipping production volumes of its new 56311, a 24-bit DSP focused on communications applications. The 150MHz chip has 384K of on-chip SRAM (organized as 128K of 24-bit words) and an enhanced filter coprocessor (EFCOP) that can perform echo cancellation in parallel with other tasks executed by the DSP core. Motorola says the EFCOP potentially adds 120 mips of performance to the core's 150 native mips. The 56311 costs $36 in 50,000-unit volumes and is compatible with Motorola's existing 56300-based DSPs (see *MPR 12/4/95-05*, "New 56301 DSP Doubles 24-Bit Performance"). For more information: *www.motorola.com/semiconductors*. —*T.H.*

New Web Portal Targets IC Designers

SiliconX, a startup based in San Jose, plans to launch a new Web portal for chip designers in June. The business-to-business portal will link to other Web sites so designers can quickly find and choose IC-related resources, such as design services, libraries of intellectual property (IP), development tools, fabrication services, packaging, and test services. The site will also be a sales and marketing channel for providers of those services. For more information: *www.siliconx.com*. —*T.H.*

Palmchip Ships IDE Controller Core

Palmchip has introduced the BK-3709, an IDE host-controller core designed for integration with microcontroller cores. The BK-3709 is a complete IDE subsystem with all of the logic required to build an interface between a system CPU and an IDE- or ATAPI-compatible disk drive. It includes programmed I/O, multiword DMA, and Ultra ATA interface logic, and it supports up to four drives. Palmchip is delivering the core as Verilog source code with documentation, synthesis scripts, and a test bench. For more information: *www.palmchip.com*. —*T.H.*